

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference  PC545PR	<b>FOR FURTHER ACTION</b>		see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No.  PCT/EP2005/001818	International filing date (day/month/year)  22/02/2005	(Earliest) Priority Date (day/month/year)  01/03/2004	
Applicant  MEDESTEA INTERNAZIONALE S.R.L.			

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b.  With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2.  **Certain claims were found unsearchable** (See Box II).

3.  **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

USE OF N-PIPERIDINE DERIVATIVES FOR THE TREATMENT OF NEURODEGENERATIVE PATHOLOGIES

OK

5. With regard to the **abstract**,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the drawings to be published with the abstract is Figure No. \_\_\_\_\_

as suggested by the applicant.

as selected by this Authority, because the applicant failed to suggest a figure.

as selected by this Authority, because this figure better characterizes the invention.

b.  none of the figures is to be published with the abstract.

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2005/001818A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 A61K31/4545 A61P25/28

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, WPI Data, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 981 548 A (PAOLINI ET AL) 9 November 1999 (1999-11-09) cited in the application claims 1-5 Y column 2, line 40 - line 49 -----	9,10
Y	EP 1 132 085 A (DAIICHI RADIOISOTOPE LABORATORIES, LTD; YAMAGATA PUBLIC CORPORATION FO) 12 September 2001 (2001-09-12) page 2, paragraph 1 page 2, paragraph 4 ----- -/-	1-8
		1-8

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

- \*&\* document member of the same patent family

Date of the actual completion of the international search  6 July 2005	Date of mailing of the international search report  01/08/2005
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer  Giacobbe, S

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2005/001818

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	GUAN ZHI-ZHONG ET AL: "Loss of nicotinic receptors induced by beta-amyloid peptides in PC12 cells: Possible mechanism involving lipid peroxidation." JOURNAL OF NEUROSCIENCE RESEARCH, vol. 71, no. 3, 1 February 2003 (2003-02-01), pages 397-406, XP009050302 ISSN: 0360-4012 abstract	1-8
Y	SÓTONYI PÉTER ET AL: "Comparative study on cardiotoxic effect of Tinuvin 770: a light stabilizer of medical plastics in rat model." TOXICOLOGICAL SCIENCES : AN OFFICIAL JOURNAL OF THE SOCIETY OF TOXICOLOGY. FEB 2004, vol. 77, no. 2, February 2004 (2004-02), pages 368-374, XP002334830 ISSN: 1096-6080 page 368, column 2, line 17 - line 23	1,5-8
Y	DATABASE PUBMED 'Online! Department of Health and Human Services; August 2002 (2002-08), LEVIN ED, REZVANI AH: "Nicotinic Treatment for Cognitive Disorders" XP002334833 Database accession no. 12769614 abstract & CURRENT DRUG TARGETS - CNS AND NEUROLOGICAL DISORDERS, vol. 1, no. 4, August 2002 (2002-08), pages 423-431, ISSN: 1568-007X	1,5-8
Y	HERNANDEZ C M ET AL: "Regional and sub-type specific upregulation of cholinergic receptors with nicotine, mecamylamine and cotinine" SOCIETY FOR NEUROSCIENCE ABSTRACTS, vol. 27, no. 2, 2001, page 2133, XP001206875 & 31ST ANNUAL MEETING OF THE SOCIETY FOR NEUROSCIENCE; SAN DIEGO, CALIFORNIA, USA; NOVEMBER 10-15, 2001 ISSN: 0190-5295 abstract	1,5-8
	-/-	

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2005/001818

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	FRANCIS MICHAEL M ET AL: "Sensitivity to voltage-independent inhibition determined by pore-lining region of the acetylcholine receptor" BIOPHYSICAL JOURNAL, vol. 74, no. 5, May 1998 (1998-05), pages 2306-2317, XP002334831 ISSN: 0006-3495 abstract page 2307, column 2, paragraph 3 - paragraph 5 page 2312, column 2, last paragraph - page 2313, column 2, paragraph 2 page 2316, column 1, paragraph 2	1,5-8
E	WO 2005/032479 A (UNIVERSITY OF FLORIDA RESEARCH FOUNDATION, INC; PAPKE, ROGER, L; HORE) 14 April 2005 (2005-04-14) claims 1,15	1,5-10
E	US 2005/065182 A1 (PAPAZOGLU ELISABETH S) 24 March 2005 (2005-03-24) page 4, paragraph 55 - paragraph 56 claim 1	9,10
T	GRAHAM JOHN H ET AL: "Functional central nicotinic acetylcholine receptor antagonism by systemic administration of Tinuvin 770 (BTMPS)." CURRENT ALZHEIMER RESEARCH. APR 2005, vol. 2, no. 2, April 2005 (2005-04), pages 141-147, XP001206874 ISSN: 1567-2050 the whole document	1,5-8

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP2005/001818

### Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:  

Although claim 6, as well as claims 7 and 8 as far as they refer to it, are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2.  Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

#### Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International Application No	
PCT/EP2005/001818	

Patent document cited in search report	Publication date		Patent family member(s)		Publication date
US 5981548	A	09-11-1999	WO AT DE DE EP ES	9615110 A1 194596 T 69425287 D1 69425287 T2 0792266 A1 2148469 T3	23-05-1996 15-07-2000 17-08-2000 15-03-2001 03-09-1997 16-10-2000
EP 1132085	A	12-09-2001	AU EP JP US WO	1186300 A 1132085 A1 3598332 B2 6713492 B1 0030638 A1	13-06-2000 12-09-2001 08-12-2004 30-03-2004 02-06-2000
WO 2005032479	A	14-04-2005	US WO	2005119309 A1 2005032479 A2	02-06-2005 14-04-2005
US 2005065182	A1	24-03-2005	NONE		